L 8975-66

ACC NR: AP5027424   9

V. S. Vavilov for many useful observations. The author thanks E. N. Chaykovakaya and R. A. Latypova for doing the principal numerical computations. Orig. art. has: 2 figures, 1 formula.

SUB CODE: 20/   SUBM DATE: 11 May65/   ORIG REF: 002/   OTH REF: 003

Card 2/2

/ti/Hru, E.I

OKHOTNITSKIY, I.I., inzh.; YURKOV, E.I., inzh.

Method for adjusting the relay IR-1. Avtom., telem. i sviaz' 2 no.1:
28-29 Ja '58.   (MIRA 11:1)

1. Chelkarskaya distantsiya signalizatsii i svyazi Orenburgskoy
dorogi.
                        (Electric relays)

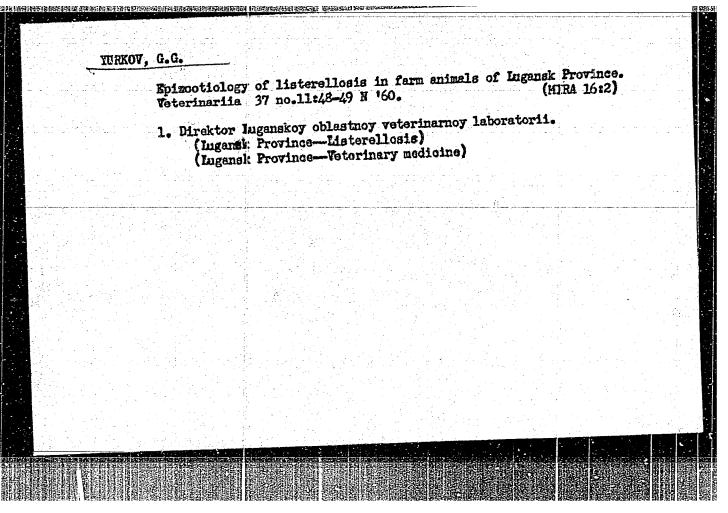YURKOV, G. G.   Director of Lugansk Oblast' Veterinary Laboratory

Epizootiology of listerellosis in agricultural animals of Lugansk Oblast',
Veterinariya, Vol. 37, No. 11, p. 48, 1960.

YURKOV, G.G., kand.veter.nauk; ANDRIYAN, Ye.A., kand.veter.nauk; VOLOSHCHUK, L.G., nauchnyy sotrudnik

Studying experimental leptospirosis in swine. Veterinariia
42 no.9:33-35 S '65.   (MIRA 18:11)

1. Luganskaya oblastnaya sel'skokhozyaystvennaya opytnaya stantsiya.

YURKOV, G.G.

Epizootiology of listerellosis in farm animals of Lugansk Province.
Veterinariia 37 no.11:48-49 N '60.   (MIRA 16:2)

1. Direktor luganskoy oblastnoy veterinarnoy laboratorii.
    (Lugansk Province—Listerellosis)
    (Lugansk Province—Veterinary medicine)

LIKHACHEV, N.V.; NAZAROV, V.P.; AGEYEV, L.S.; BORISOVICH, Yu.F.; LYUBASHENKO,
        S.Ya.; KORNEYEV, I.P.; MALAKHOV, Yu.A.; YURKOV, G.G.

    Book reviews and bibliography. Veterinariia 40 no.8:86-89 Ag '63.

                                                            (MIRA 17:10)

YURKOV, G. K.

Physics - Study and Teaching

The relation between chemistry and physics courses in secondary school, Khim. v shkole, No. 3, 1952.

Monthly List of Russian Accessions, Library of Congress, November 1952. Unclassified.

YURKOV, G.K.

Through the pages of popular-science journals. Khim. v shkole 9 no.4:
70-74 Jl-Ag '54.
    (Bibliography--Science)(Science--Bibiography)   (MLRA 7:8)

YURKOV, Georgiy Kapitanovich; ; SAFONOVA, Irina Nikolayevna;
    METEL'SKAYA, G.S. red.; MAKHOVA, N.N., tekhn. red.

    [Water; manual for students in the upper grades] Voda; posobie dlia
uchashchikhsia starshikh klassov. Moskva, Uchpedgiz, 1962. 87 p.
                                                    (MIRA 15:6)
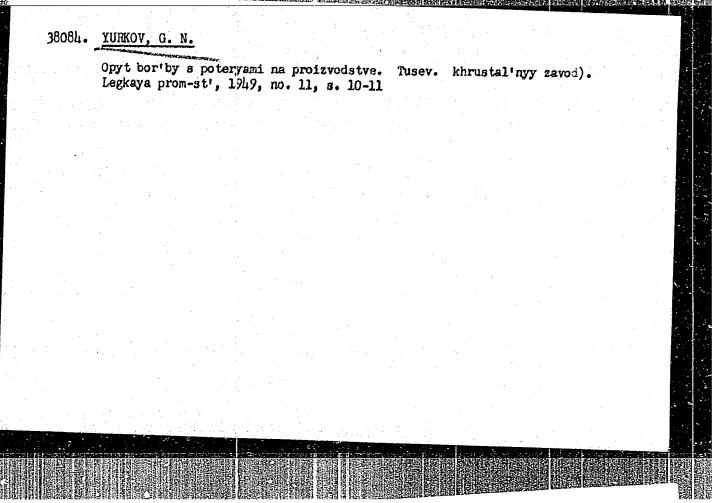   (Water)

SHEBALIN, D.V., polkovnik; YURKOV, G.L., mayor, red.; KARPOV, I.I.,
    tekhn. red.

    [Military topography] Voennaia topografiia; uchebnoe po-
    sobie. 12. izd. [n.p.] Voen.izd-vo narodnogo komissariata
    obor., 1946. 211 p.   (MIRA 16:8)
                        (Military topography)

MIKHAYLOV, N.I., doktor tekhn. nauk; NOVOSELOV, A.S., kand. tekhn
nauk. Prinimali uchastiye: YURKOV, G.M., tekhnik;
AMEL'KINA, E.V., tekhnik; RAZUMOV, L.D., otv. red.;
VOLODARSKAYA, V.Ye., red.

[Regulations governing the construction and repair of
overhead communication lines and wire broadcasting net-
works] Pravila stroitel'stva i remonta vozdushnykh linii
sviazi i radiotransliatsionnykh setei. Moskva, Sviaz'-
izdat. Pt.4. 1962. 109 p.   (MIRA 17:3)

1. Russia (1923- U.S.S.R.) Ministerstvo svyazi.

38084. YURKOV, G. N.

Opyt bor'by s poteryami na proizvodstve. Tusev. khrustal'nyy zavod).
Legkaya prom-st', 1949, no. 11, s. 10-11

SOV/76-33-6-20/44

5(4)
AUTHORS: Brounshteyn, B. I.,   Yurkov, G. N.

TITLE: Computation of Thermodynamic Functions of Diatomic Ideal
             Gases, the Molecules of Which Are in the $^3\Pi$ Electron State
             (Vychisleniye termodinamicheskikh funktsiy dvukhatomnykh
             ideal'nykh gazov, molekuly kotorykh nakhodyatsya v $^3\Pi$ elek-
             tronnom sostoyanii)

ABSTRACT: A computation method was worked out, which is more accurate
             than the one suggested by Gordon (Ref 1), and which serves
             for the computation of thermodynamic functions of diatomic
             ideal gases, the molecules of which are in the $^3\Pi$ electron
             state (regular and inverse), with an arbitrary bond type
             according to Hund. The two cases of an a and b bond accord-
             ing to Hund (of high and low temperature) are considered,
             and it is stated inter al   that a correction according to
             Budó (Ref 2) into the equation (1) by Hill and van Vleck
             (Ref 3) leads to a wrong derivation; hence, this correction

Card 1/2

SOV/76-33-6-20/44

Computation of Thermodynamic Functions of Diatomic Ideal Gases, the
Molecules of Which Are in the $^3\Pi$ Electron State

must be rectified. Some new and more simple computation equations (than those by Gordon) are derived (45) - (52), (9), (34) - (36) and on the strength of the example of the molecules C_2 and TiO the values of free energy and entropy are computed; they are furthermore computed according to two other methods and compared (Table 2). There are 2 tables and 10 references, 3 of which are Soviet.

ASSOCIATION: Institut prikladnoy khimii,Leningrad
(Institute of Applied Chemistry, Leningrad)

SUBMITTED: November 13, 1957

Card 2/2

BROUNSHTEYN, B.I.; GURVICH, L.V.; YUNGMAN, V.S.; YURKOV, G.N.

Statistical methods of computing the thermodynamic functions of ideal
gases. Report No. 1: General relationships of statistical thermody-
namics for ideal gas. Trudy GIPKH no.42:3-10 '59.   (MIRA 13:10)
        (Thermodynamics)   (Gases)

BROUNSHTEYN, B.I.; GURVICH, L.V.; YUNGMAN, V.S.; YURKOV, G.N.

Statistical methods of computing the thermodynamic functions of ideal gases. Report No. 2: Expression for the statistical sum based on the states of diatomic molecules. Method of direct summation based on the levels of diatomic molecules. Trudy GIPKH no.42:11-20 '59.

(MIRA 13:10)

(Gases)   (Thermodynamics)

BROUNSHTEYN, B.I.; GURVICH, L.V.; YUNGMAN, V.S.; YURKOV, O.N.

Statistical methods of computing the thermodynamic functions of ideal
gases. Report 3: Approximate methods of calculating the statistical
sum from the rotational states of diatomic molecules. Trudy GIPKH
no.42:21-50 '59.   (MIRA 13:10)
            (Thermodynamics)   (Gases)

S/081/61/000/012/004/028
B105/B202

AUTHORS: Brounshteyn B. I., Yurkov, G. N.

TITLE: Statistical methods of calculating thermodynamic functions of ideal gases. Communication IV. Approximation methods for calculating the statistical sum of the vibrational and rotational levels of diatomic molecules

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 12, 1961, 62, abstract 126409 (Sb. tr. Gos. in-ta prikl. khimii, 1960, vyp. 46, 3-14.)

TEXT: In continuation of a paper published earlier (Communication III, RZhKhim, 1960, No. 12, 46007) the authors describe approximation methods for calculating statistical sums of the vibrational and rotational levels of the energy of the molecules in $^1\Sigma$-, $^2\Sigma$-, $^3\Sigma$-, $^2\Pi$- and $^3\Pi$-states. The calculations were made by the method of A. R. Gordon, C. Barnes ("J. Chem. Phys.", 1933, 1, 297) for all given states, by the method of L. S. Kassel ("J. Chem. Phys.", 1933, 1, 576; "Chem. Rev.", 1936, 18, 277) for the $^1\Sigma$ electron state, and by the method of D. Mayer, M. Geppert-Mayer

Card 1/2

Statistical methods of calculating ...
S/081/61/000/012/004/028
B105/B202

(Statistische Mechanik. IL, 1952) for the $^1\Sigma$ state. The authors obtained calculation formulas. It is emphasized that the generalization of the methods of Kassel and Mayer - Geppert-Mayer for other electron states is analogous to the mentioned calculations of these states made by the method of Gordon and Barnes. [Abstracter's note: Complete translation.]

Card 2/2

24813
S/081/61/000/011/002/040
B105/B203

24.6110

AUTHORS: Brounshteyn, B. I., Yurkov, G. N.

TITLE: Determination of effective values of vibration constants
                of diatomic molecules for calculating thermodynamic functions
                of ideal gases at high temperatures

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 11, 1961, 10, abstract
                11 B 68 (Sb. tr. Gos. in-ta prikl. khimii, 1960, vyp. 46,
                29 - 42)

TEXT: The authors describe a method of calculating the coefficient of
the extrapolation equation for the energy of high vibrational levels
of a diatomic molecule conjugated with the equation for the energy of
experimentally determined lower levels, which equation corresponds to
the demand for convergence of the vibrational levels to the limit of
dissociation.   They also suggested a method of approximation of the
energy of vibrational levels by means of a power function of the quantum
number ν which is based on the use of the method of least squares by
introducing statistical weights for each level. The values of effective

Card 1/2

24813
S/081/61/000/011/002/040
Determination of...   B105/B203

vibration constants obtained by the method suggested depend on temperature.
It is assumed to be convenient to utilize the thus found approximation
equations for the energy of vibrational levels when making a great number
of calculations of thermodynamic functions in the given interval of
temperatures, or for estimating the calculation errors. Examples are
given for calculations of H_2 and HF. [Abstracter's note: Complete
translation.]

Card 2/2

11.5300

S/058/61/000/004/009/042
A001/A101

AUTHORS: Brounshteyn, B.I., Yurkov, G.N.

TITLE: Determination of effective values of oscillation constants of diatomic molecules for calculating thermodynamic functions of perfect gases at high temperatures

PERIODICAL: Referativnyy zhurnal. Fizika, no 4, 1961, 160, abstract 4V69 ("Sb. tr. Gos. in-ta prikl. khimii", 1960, no 16, 29 - 42)

TEXT: The authors developed a method of approximate calculation of higher oscillation levels based on the known values of lower levels and experimentally found value of the molecule dissociation energy. They propose a method of determining "effective constants" which assure the greatest precision of calculating thermodynamic functions at the given numbers of constants. "Effective constants" proved to be dependent on temperature. The method is exemplified by calculating molecules of H_2 and HF.

[Abstracter's note: Complete translation.]

Card 1/1

GURVICH, Lev Veniaminovich, kand. khim. nauk; KHACHKURUZOV, Georgiy
    Akopovich, kand. khim. nauk; MEDVEDEV, Vadim Andreyevich,
    kand. khim. nauk; VEYTS, Inessa Veniaminovna, kand. khim.
    nauk; BERGMAN, Georgiy Andreyevich; YUNGMAN, Vladimir
    Stepanovich; RTISHCHEVA, Nina Petrovna; KURATOVA, Lidiya
    Fedorovna; YURKOV, Georgiy Nikolayevich; KANE, Amaliya
    Abramovna; YUDIN, Boris Fedorovich; BROUNSHTEYN, Boris
    Isidorovich; BAYDUZ, Viktor Feodoseyevich; KVLIVIDZE,
    Valeriy Aleksandrovich; PROZOROVSKIY, Yevgeniy Aleksandrovich;
    VOROB'YEV, Boris Aleksandrovich; GERASIMOV, Ya.I., retsenzeng;
    SKURATOV, S.M., prof., retsenzent; GLUSHKO,V.P.,akad., otv.red.;
    KHACHKURUZOV,G.A.,red.;GUROV,K.P.,red.izd-va;LAUT,V.G.,tekhn.red.

[Thermodynamic properties of individual substances; reference
guide in two volumes]Termodinamicheskie svoistva individual'-
nykh veshchestv; spravochnik v dvukh tomakh. Izd.2., polno-
st'iu perer. i rasshirennoe. Pod red. V.P.Glushko (otv. red.)
i dr. Moskva, Izd-vo Akad. nauk SSSR. Vol.1.(Calculation of
thermodynamic properties]Vychislenie termodinamicheskikh
svoistv. 1962. 1161 p. Vol.2. [Tables of thermodynamic
properties]Tablitsy termodinamicheskikh svoistv. 1962. 916 p.
                                          (MIRA 15:10)
                              (Continued on next card)

BROUNSHTEYN, B.I.; YURKOV, G.N.

Critical remarks concerning P.I.Artym's article "Calculation of
thermodynamic functions of ideal gases from spectroscopic data."
Zhur.fiz.khim. 36 no.5:1110-1112 My '62.   (MIRA 15:8)

1. Gosudarstvennyy institut prikladnoy khimii.
                    (Gas dynamics) (Artym, P.I.)

YURKOUIG.N.

PHASE I BOOK EXPLOITATION   SOV/6260

Gurvich, Lev Veniaminovich, Georgiy Akopovich Khachkuruzov, Vadim Andreyevich Medvedev, Inessa Veniaminovna Veyts, Georgiy Andreyevich Bergman, Vladimir Stepanovich Yungman, Nina Petrovna Rtishcheva, Lidiya Fedorovna Kuratova, Georgiy Nikolayevich Yurkov, Amaliya Abramovna Kane, Boris Fedorovich Yudin, Boris Isidorovich Brounshteyn, Viktor Feodoseyevich Baybuz, Valeriy Aleksandrovich Kvlividze, Yevgeniy Aleksandrovich Prozorovskiy, and Boris Aleksandrovich Vorob'yev.

Termodinamicheskiye svoystva individual'nykh veshchestv; spravochnik v dvukh tomakh. tom 1: Vychisleniye termodinamicheskikh svoystv; tom 2: Tablitsy termodinamicheskikh svoystv (Thermodynamic Properties of Individual Substances; Reference Book in Two Volumes. v. 1: Calculation of Thermodynamic Properties; v. 2: Tables of Thermodynamic Properties). 2d ed., rev. and enl. Moscow, Izd-vo AN SSSR, 1962. 1161 and 916 p. 4000 copies printed.

Sponsoring Agencies: Akademiya nauk SSSR. Institut goryuchikh iskopayemykh; and Gosudarstvennyy komitet Soveta Ministrov SSSR

Card 1/𝟒𝟑

Thermodynamic Properties (Cont.)   SOV/6260

    po khimii. Institut prikladnoy khimii.

Resp. Ed.: V. P. Glushko, Academician, L. V. Gurvich, G. A. Khach-
    kuruzov, I. V. Veyts, and V. A. Medvedev; Ed. of Publishing House:
    K. P. Gurov; Tech. Ed.: V. G. Laut.

PURPOSE: This reference book may be used in scientific-research and
    experimental-design work in institutes, design offices, and
    schools of higher education, as well as for training specialists
    in chemical thermodynamics and thermal physics.

COVERAGE: Volume 1 of this work deals with methods for calculating
    thermodynamic properties and with the selection of constants re-
    quired for the calculations. Volume 2 contains tables of thermo-
    dynamic properties (reduced thermodynamic potential, entropy,
    enthalpy, and the logarithm of the dissociation or ionization
    constants of equilibrium) compiled, where data were lacking, on the
    basis of published and unpublished material from a number of Soviet
    research institutes. Thermodynamic properties for the ideal gas

Card 2/9 ₃

Thermodynamic Properties (Cont.)   SOV/6260

state are presented in table form for 335 gases, 44 liquids, and
45 solids compounded from 33 chemical elements and their isotopes,
viz.: H, D, T, He, Li, Be, B, C, N, O, F, Ne, Na, Mg, Al, Si, P,
S, Cl, Ar, K, Ca, Br, Kr, Re, Sr, Zr, I, Xe, Cs, Ba, Hg, and Pb.
Thermodynamic properties are given for the following 22 gases in
the range from room temperature to 20,000°K: H, H$^+$, H$^-$, O, O$^+$, H$_2$,
O$_2^+$, O$_2$, OH, OH$^+$, H$_2$O, N, N$^+$, N$_2$, N$_2^+$, NO, NO$^+$, C, C$^+$, CO, CO$^+$, and
e$^-$; for the 14 least stable gases up to 4000°K; and for the re-
maining 299 gases up to 6000°K. Virial coefficients for 34 gases
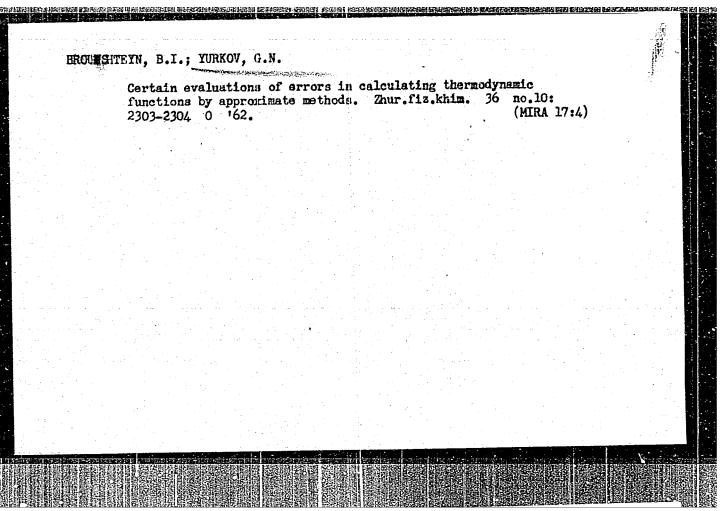are also given up to 6000°K.

BROUNSHTEYN, B. ; YURKOV, G.N.

Approximate method for the calculation of the thermodynamic
functions of diatomic ideal gases at high temperatures taking
the higher anharmonicity constants into account. Zhur. fiz.
khim. 36 no.6:1191-1197 Je'62   (MIRA 17:7)

1. Leningradskiy institut prikladnoy khimii.

BROUISHTEYN, B.I.; YURKOV, G.N.

Certain evaluations of errors in calculating thermodynamic
functions by approximate methods. Zhur.fiz.khim. 36 no.10:
2303-2304 0 '62.   (MIRA 17:4)

MEDVEDEV, V.A.; YUNGMAN, V.S.; VOROB'YEV, A.F.; GURVICH, L.V.;
BERGMAN, G.A.; REZNITSKIY, L.A.; KOLESOV, V.P.;
GAL'CHENKO, G.L.; KHODEYEV, Yu.S.; KHACHKURUZOV, G.A.;
SOKOLOV, V.B.; GOROKHOV, L.N.; MONAYENKOVA, A.S.;
KOMAROVA, A.F.; VEYTS, I.V.; YURKOV, G.N.; MALENKOV, G.G.;
SMIRNOVA, N.L.; GLUSHKO, V.P., akademik, otv. red.;
MIKHAYLOV, V.V., red.; KARAPET'YANTS, M.Kh., red.

[Thermal constants of substances; reference book in ten
numbers] Termicheskie konstanty veshchestva; spravochnik
v desiati vypuskakh. Moskva, No.1. 1965. 144 p.
(MIRA 18:7)

1. Moscow. Vsesoyuznyy institut nauchnoy i tekhnicheskoy
informatsii.

BROUNSHTEYN, B.I.; YURKOV, G.N.

Statistical methods of calculating the thermodynamic functions
of ideal gases. Part 5: Approximate methods of calculating the
thermodynamic functions of diatomic gases. Trudy GIPKH No.49:
5-19 '62.   (MIRA 17:11)

ORLOV, P.G.; YURKOV, I.A.

Calculating the foundations of drilling masts. Mash. i neft. obor.
no.1:3-6 '65.   (MIRA 18:4)

1. Barnaul'skiy zavod geologorazvedochnogo oborudovaniya.

YURKOV, I. S.

The first N. A. Minkevich prize was given to the following teams:
Candidate of Technical Sciences A. D. Assonov, Engineers N. I. Tereshchin,
V. F. Nikonov, D. I. Kostenko, S. G. Marinchev, I. S. Yurkov, N. N. Inshakova,
N. N. Yanchuk, A. A. Bulatnikov and G. Ye. Litvin (Automobile Works imeni
Likhachev) for their paper "Investigation and Introduction of the Process of
Nitrocementation by Direct Isothermal Hardening in an Alkali Inside Muffleless
Equipment", their design of a muffleless furnace heated by vertical radiation
tubes is of interest.

Results of the 1958 Competition for Obtaining imeni D. K. Chernov and imeni
N. A. Minkevich Prizes, Metallovedeniye i termicheskaya obrabotka metallov,
1959, No. 6, pp 62-64

Yurkov, L.F.

USSR/ Analytical Chemistry. Analysis of Inorganic   G-2
    Substances.

Abs Jour: Referat. Zhur.-Khimiya, No. 8, 1957, 27142

Author : V.L. Indenbom, Ts.A. Karchmar, L.F. Yurkov,
           B.M. Glukhovskoy.

Title   : Fast Method of Determination of Potassium Oxide
           in Glass by Radioactivity.

Orig Pub: Zavod. laboratotiya, 1956, 22, No. 11, 1293.

Abstract: The determination of potassium oxide in glass was
           carried out using the β radiation of the natural
           radioactive isotope K^{40}. The activity was meas-
           ured with an installation of the type B with a
           AS-2 counter. In order to eliminate adjustments
           for self-absorption, the thickness of the speci-
           men surrounding the counter must be $\geqslant 0.4$ g/cm^2.
           The error of the determination of K_2O in glass

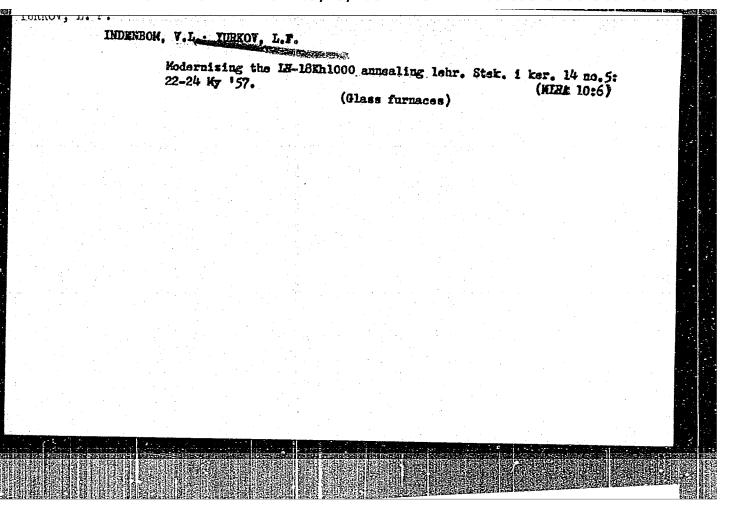Card 1/2

USSR/ Analytical Chemistry.   Analysis of Inorganic   G-2
     Substances.

Abs Jour: Referat. Zhur.-Khimiya, No. 8, 1957, 27142.

        is from 0.1 to 0.15%. If the content of K_2O
        was known, the digression of the expansion ratio
        of glass from the given ratio allows for the
        determination also of the content of Na_2O. The
        complete determination is carried out in about 1
        hour.

Card 2/2

TURKOV, L. F.

INDENBOM, V.L.; YURKOV, L.F.

Modernizing the LN-18Kh1000 annealing lehr. Stek. i ker. 14 no.5: 22-24 My '57.

(Glass furnaces)

(MIRA 10:6)

SOV/72-58-1o-14/18

AUTHORS: Veklich, P. M., Slivinskiy, I. G., Yurkov, L. F.

TITLE: Heating Stove for Glass Parts of Electronic Fluorescent Tubes (Nagrevatel'naya pech' dlya steklyannykh detaley elektronno-luchevykh trubok)

PERIODICAL: Steklo i keramika, 1958, Nr 1o, pp 44-45 (USSR)

ABSTRACT: The authors of this article constructed some gas stoves for these parts at the Moskovskiy elektrolampovyy zavod (Moscow Incandescent Bulb Factory). The stoves were built for the heating of cones and shades prior to their welding. Such a stove (Fig 1) has two muffle channels, a lower and an upper one. The heating surfaces of the muffle channels are produced of carborundum plates of the dimensions 303 x 343 mm. The construction makes it possible to heat the parts to be welded sufficiently quickly, and also to carry out repair work of the muffle without putting the stove to pieces. The waste gases from the lower muffle are directed into the upper one; they heat the latter and then are sucked off by a fan. To improve the temperature control the muffle channels are separated into 5 individual sections by walls.
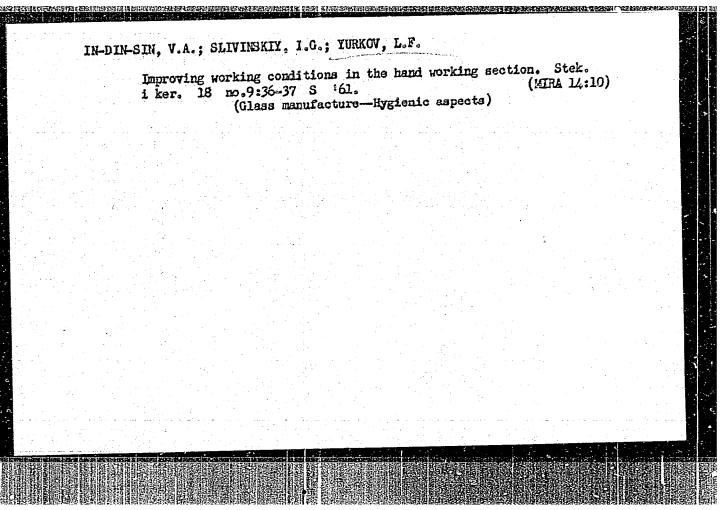
Card 1/2

SOV/72-58-1o-14/18
Heating Stove for Glass Parts of Electronic Fluorescent Tubes

The parts to be heated move continuously in the operation cham-
ber of the stove on a conveyer belt. The heating cycle may
be adjusted within 10 to 30 minutes at a length of the
operation chamber of the stove of 10 m; this is done by con-
trolling the velocity of the conveyer belt. The stove tem-
perature conditions are controlled by means of thermo-
couples. From figure 2 the course of the temperature in the
stove may be seen. This simple construction makes it pos-
sible to the glass factories to produce them by themselves.
There are 2 figures.

ASSOCIATION: Moskovskiy olektrolampovyy zavod (Moscow Incandescent Bulb
              Factory)

Card 2/2

IN-DIN-SIN, V.A.; SLIVINSKIY, I.G.; YURKOV, L.F.

Improving working conditions in the hand working section. Stek.
i ker. 18 no.9:36-37 S '61.   (MIRA 14:10)
              (Glass manufacture—Hygienic aspects)

NOVIKOV, M.D.; SLIVINSKIY, I.G.; YURKOV, L.F.

Mechanization of draining and granulating melted glass when
stopping a pot furnace for repair. Stek.i ker. 20 no.2:35
F '63.   (MIRA 16:2)

1. Moskovskiy elektrolampovyy zavod.
                            (Glass furnaces)

YURKOV, L.F., inzh.

     Peculiarity of the melting of lead glass and its connection
     with the thermodynamic characteristics of some lead sili-
     cates. Stek. i ker. 20 no.7:8-11 Jl '63.   (MIRA 17:2)

     1. Moskovskiy elektrolampovyy zavod.

GINZBURG, D.B., doktor tekhn. nauk [deceased]; RAPOPORT, A.Ya., inzh.;
    SLIVINSKIY, I.G., inzh.; YURKOV, L.F., inzh.; EL'KIN, G.B., inzh.

Investigating processes of manufacturing high-lead glass.
Stek. i ker. 22 no.12:9-11 D '65.   (MIRA 18:12)

YURKOV, M. I.

Yurkóv, M. I.   "Morphology of the orific: of the main pancreatic duct in cattle,"
Trudy Stavrop. s.-kh. in-ta, Issue 3, 1948, P. 235-50 -- Biblicg: 9 items

So: U-3566, 15 March 53, (Letopis 'Zhurnal 'nykh Statey, No. 13, 1949)

YURKOV, H. I.

Yurkov, H. I. "Variation of the form of the pancreas in cattle," Trudy Stavrop. s.-kh. in-ta, Issue 3, 1948, p. 129-60 -- bibliog: 31 items

So: U-3566, 15 March 53, (Letopis 'Zhurnal 'nykh Statey, No. 13, 1949)

BUDNIKOV, P.P.; YURKOV, M.I.

Cathedoluminescence of synthetic silicates and aluminates. Dep.AN URSR ne.4:3-11 '48. (MIRA 9:9)

1.Diysniy chlen AN URSR (for Budnikov). 2.Ordena Lenina khimiko-tekhne-logichniy institut imeni D.I.Mendeleyeva.
(Cathode ray tubes) (Silicates) (Aluminates)

YURKOV, N.N.; ZAGORSKAYA, Ye.P., kandidat tekhnicheskikh nauk.

Measures to control the noise of roving machines. Tekst.prom.
14 no.8:48-52 Ag '54.   (MLRA 7:10)

1. Glavnyy inzhener fabriki "Oktyabr'skaya." (for Yurkov)
        (Textile machinery)

GUS'KOVA, A.K.; YURKOV, N.N.; KIRYUSHKIN, V.I. (Moskva)

Compensatory reactions in insufficiency of the brain's blood
supply. Zhur.nevr.i psikh. 61 no.10:1457-1462 '61.

(MIRA 15:11)

(CEREBROVASCULAR DISEASES) (ELECTROENCEPHALOGRAPHY)

YURKOV, N.V.

Therapeutic effectiveness of furazolidon in the treatment of acute
dysentery. Vrach. delo no. 1:113-114 '61.   (MIRA 14:4)

1. Kafedra detskikh infektsionnykh bolezney (zav. - dotsent G.V.
Levina) Dnepropetrovskogo meditsinskogc instituta na baze
infektsionnoy bol'nitsy.
                    (DYSENTERY)   (NITROFURAZONE)

POPKOVA, Ye.G.; YURKOV, N.V.

Shortening the treatment time in dysentery patients with antibiotics
and chemical preparations. Antibiotiki 8 no.9:839-841 S '63.

(MIRA 17:11)

1. Kafedra infektsionnykh bolezney (zav. Ye.G. Popkova) Zaporozh-
skogo instituta usovershenstvovaniya vrachey i kafedra detskikh
infektsiy (zav. G.V. Levina) Dnepropetrovskogo meditsinskogo insti-
tuta.

YURKOV, P.A., inzhener

Effect of lightning striking a 35 kv transmission line protected by lightning rods. Energetik 3 no.6:29-30 Je '55. (MIRA 8:9)
                    (Lightning arresters)

YURKOV, Petr Vasil'yevich; PROFERANSOV, D.P., red.; GYUNTER, A.R.,
red.; KASIMOV, D.Ya., tekhn. red.

[What the builder should know about accounting on a construction
project] Chto nuzhno znat' stroiteliu ob uchete na stroike. Mo-
skva, Gos. izd-vo lit-ry po stroit., arkhit. i stroit. materialam
1961.   34 p.   (MIRA 15:3)
          (Construction Industry--Accounting)

YURKOV, S.S

RUSHCHITS, V.R., inzhener; YURKOV, S.S., inzhener.

Automatic production line for machining rope blocks. Stroi.i dor.
mashinostr. 2 no.8:34-38 Ag '57.   (MLRA 10:9)
(Machinery, Automatic)

YURKOV, ENG. V. A.

Cement Industries

Decreasing the moisture content of slime at the "Spartak" plant. TSement 18 No. 4, 1952.

Monthly List of Russian Accessions, Library of Congress, December 1952. Unclassified

L 09243-67   EWT(1)

ACC NR: AP7002791   SOURCE CODE: UR/0139/66/000/004/0169/0171

AUTHOR: Yurkov, V. A.; Ivashchenko, Z. G.

ORG: Arkhangel'sk Forestry Institute im. V. V. Kuybyshev (Arkhangel'skiy lesotekhnicheskiy institut)
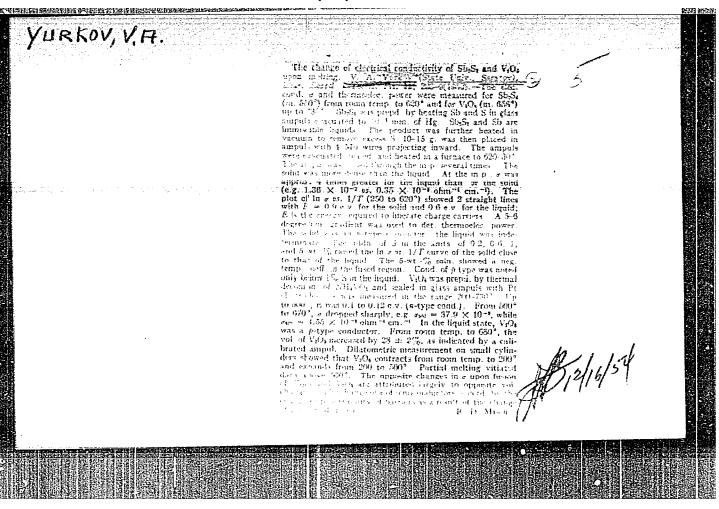
TITLE: Isobar for a real gas

SOURCE: IVUZ. Fizika, no. 4, 1966, 169-171

TOPIC TAGS: isobar, real gas

ABSTRACT: A family of isobars is constructed for carbon dioxide gas, using van der Waals corrections. The typical isobar exhibits a region of two-phase states similar to that of the van der Waals isotherm. It is shown that critical values of P_k, V_k, and T_k can be computed from the isobars.

At 10 atm the volume of gas decreases linearly with temperature until a reversal occurs, similar to that of the van der Waals isotherm. In the reversal region the system is in a two-phase state: one consisting of super-cooled vapor, the other superheated liquid.

With increasing pressure the reversal of the curve becomes smoother, until it finally disappears at the critical pressure of 100 atm. A comparison is made of the variation in pressure with decreasing temperature at constant volume. Orig. art. has: 2 figures and 2 formulas. /JPRS: 39,040/

SUB CODE: 20 / SUBM DATE: 20Mar65 / ORIG REF: 002

Card 1/1

YURKOV, V.A.

The change of electrical conductivity of Sb₂S₃ and V₂O₅ upon melting. V. A. Yurkov (State Univ., Saratov). _____. _____ _____ _____.—The elec. cond. σ and thermoelec. power were measured for Sb₂S₃ (m. 540°) from room temp. to 650° and for V₂O₅ (m. 658°) up to 735°. Sb₂S₃ was prepd. by heating Sb and S in glass ampuls evacuated to 0.1 mm. of Hg. Sb₂S₃ and Sb are immiscible liquids. The product was further heated in vacuum to remove excess S. 10–15 g. was then placed in ampuls with 4 Mo wires projecting inward. The ampuls were evacuated, sealed, and heated in a furnace to 620–30°. The ampul was tilted through the m.p. several times. The solid was more dense than the liquid. At the m.p. σ was approx. 4 times greater for the liquid than for the solid (e.g. 1.36 × 10⁻² vs. 0.35 × 10⁻² ohm⁻¹ cm.⁻¹). The plot of ln σ vs. 1/T (250 to 620°) showed 2 straight lines with E = 0.9 e.v. for the solid and 0.6 e.v. for the liquid; E is the energy required to liberate charge carriers. A 5–6 degree temp. gradient was used to det. thermoelec. power. The solid was an n-type conductor; the liquid was indeterminate. Sol. addn. of S in the amts. of 0.2, 0.6, 1, and 5 wt. % raised the ln σ vs. 1/T curve of the solid close to that of the liquid. The 5-wt.-% soln. showed a neg. temp. coeff. in the fused region. Cond. of p type was noted only below 1% S in the liquid. V₂O₅ was prepd. by thermal decompn. of NH₄VO₃ and sealed in glass ampuls with Pt electrodes. σ was measured in the range 300–730°. Up to 660°, σ was 0.1 to 0.15 e.v. (n-type cond.). From 660° to 670°, σ dropped sharply, e.g. σ₆₆₀ = 37.9 × 10⁻³, while σ₆₇₀ = 1.55 × 10⁻⁴ ohm⁻¹ cm.⁻¹. In the liquid state, V₂O₅ was a p-type conductor. From room temp. to 660°, the vol. of V₂O₅ increased by 28 ± 2%, as indicated by a calibrated ampul. Dilatometric measurement on small cylinders showed that V₂O₅ contracts from room temp. to 200° and expands from 200 to 500°. Partial melting vitiated data above 500°. The opposite changes in σ upon fusion of Sb₂S₃ and V₂O₅ are attributed largely to opposite vol. changes. ... of semiconductors ... ... as a result of the change ...

... ...   R. D. Myers

12/16/54

YURKOV, V.

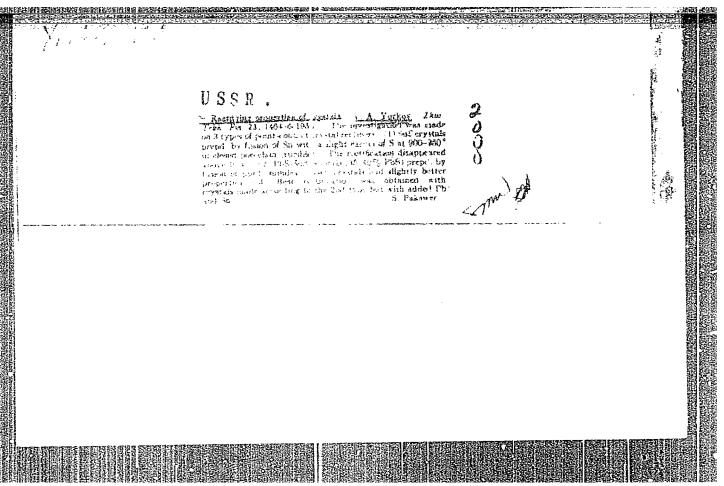USSR/Physics - Semiconductivity   Oct 52
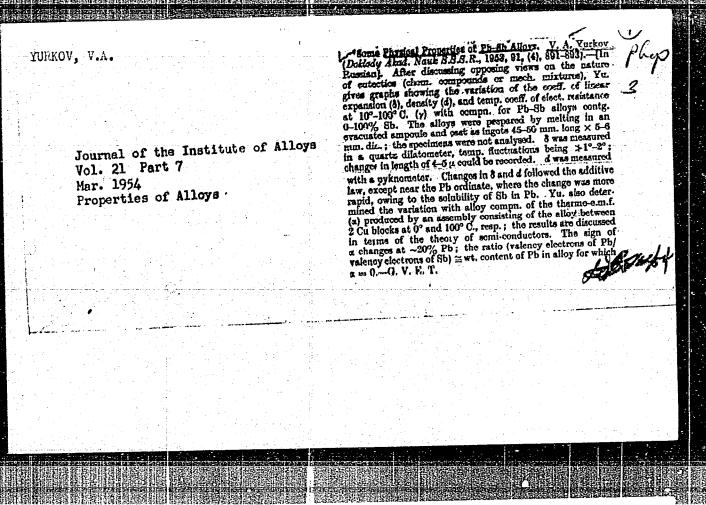
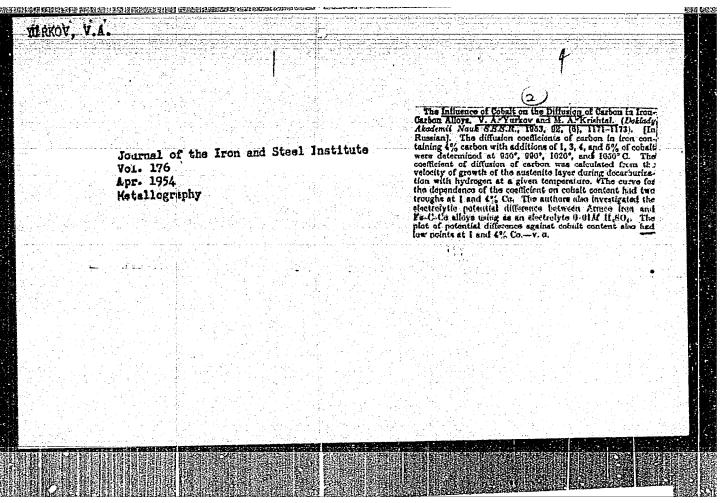"Electric Properties of Sb2S3 and Bi2S3," G. Galkin, G. Dolgikh and V. Yurkov

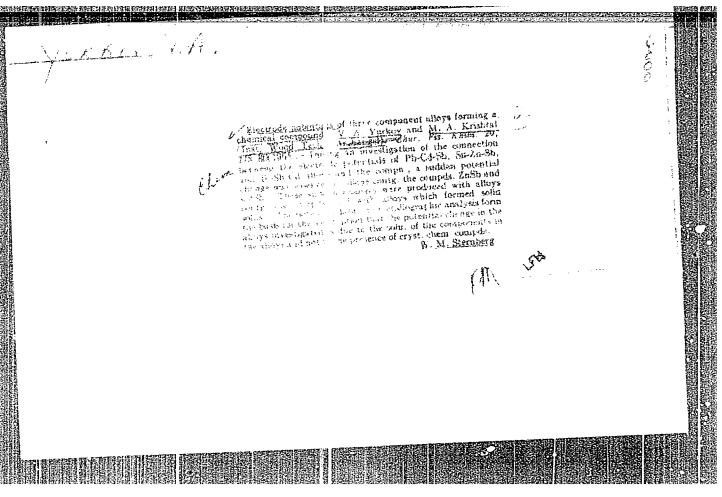"Zhur Tekh Fiz" Vol 22, No10, pp 1533-1539

Thermal relations of electric conductivity of samples Sb_2S_3 and Bi_2S_3 were studied.
Magnitude and sign of temp coeff of electric conductivity of sulfides and thermo-
emf of a metal and semiconductor paired essentially depend on thermal treatment of
samples and on range of temp. Results of tests are interpreted within frames of
zone theory of semiconductors. Indebted to Z. I. Kir'yashkina and L. I. Baranova.
Received 4 Jun 52.

PA 236T89

USSR.

Resintering properties of crystals   I. A. Turbot   2 kw
Trav. Fiz. 23, 1404-6-195)   The investigation was made
on 3 types of point-contact crystal rectifiers   1) the crystals
prepd. by fusion of Sn with a slight excess of S at 900-950°
in closed porcelain crucibles   The rectification disappeared
when the crystals were heated to 40% PbS) prepd. by
fusion of pure S minutes   The crystals had slightly better
properties   Best rectification was obtained with
crystals made according to the 2nd type but with added Pb.
vol. 56   S. Palanner

2000

YURKOV, V.A.

Journal of the Institute of Alloys
Vol. 21 Part 7
Mar. 1954
Properties of Alloys ·

Some Physical Properties of Pb-Sb Alloys. V. A. Yurkov (Doklady Akad. Nauk S.S.S.R., 1953, 91, (4), 891-893).—[In Russian]. After discussing opposing views on the nature of eutectics (chem. compounds or mech. mixtures), Yu. gives graphs showing the variation of the coeff. of linear expansion (δ), density (d), and temp. coeff. of elect. resistance at $10°-100°$ C. (γ) with compn. for Pb-Sb alloys contg. 0-100% Sb. The alloys were prepared by melting in an evacuated ampoule and cast as ingots 45-50 mm. long × 5-6 mm. dia.; the specimens were not analysed. δ was measured in a quartz dilatometer, temp. fluctuations being $+1°-2°$; changes in length of 4-5 μ could be recorded. d was measured with a pyknometer. Changes in δ and d followed the additive law, except near the Pb ordinate, where the change was more rapid, owing to the solubility of Sb in Pb. Yu. also determined the variation with alloy compn. of the thermo-e.m.f. (α) produced by an assembly consisting of the alloy between 2 Cu blocks at $0°$ and $100°$ C., resp.; the results are discussed in terms of the theory of semi-conductors. The sign of α changes at ~20% Pb; the ratio (valency electrons of Pb/ valency electrons of Sb) $\cong$ wt. content of Pb in alloy for which $\alpha = 0.$—O. V. E. T.

YURKOV, V.A.

(2)

Journal of the Iron and Steel Institute
Vol. 176
Apr. 1954
Metallography

The Influence of Cobalt on the Diffusion of Carbon in Iron-Carbon Alloys. V. A. Yurkov and M. A. Krishtal. (Doklady Akademii Nauk S.S.R., 1953, 92, (6), 1171-1173). [In Russian]. The diffusion coefficients of carbon in iron containing 4% carbon with additions of 1, 3, 4, and 5% of cobalt were determined at 950°, 990°, 1020°, and 1050° C. The coefficient of diffusion of carbon was calculated from the velocity of growth of the austenite layer during decarburization with hydrogen at a given temperature. The curve for the dependence of the coefficient on cobalt content had two troughs at 1 and 4% Co. The authors also investigated the electrolytic potential difference between Armco iron and Fe-C-Co alloys using as an electrolyte 0.01 M H_2SO_4. The plot of potential difference against cobalt content also had low points at 1 and 4% Co.—v. a.

Electrode potentials of three component alloys forming a chemical compound. V. A. Yurkov and M. A. Kriahtal

An investigation of the connection between the electrode potentials of Pb-Cd-Sb, Sn-Zn-Sb, and Pb-Sb-Cd alloys and the compn., a sudden potential change was observed... alloys contg. the compds. ZnSb and ... These ... were produced with alloys ... alloys which formed solid ... ... radiographic analysis form ... bends at the ... given that the potential change in the alloys investigated ... due to the presnc. of the components in the alloys ... the presence of cryst. chem. compds.

B. M. Sternberg

Yurkov, V. H.

USSR/Electricity - Semiconductors, G-3

Abst Journal: Referat Zhur - Fizika, No 12, 1956, 35074

Author: Yurkov, V. A., Alekseyeva, N. Ye.

Institution: Arkhangel'sk Forestry Institute, Arkhangel'sk

Title: Thermal-Electric Properties of Cd-Sb Alloys

Original
Periodical: Zh. tekhn. fiziki, 1956, 26, No 4, 911-912

Abstract: A null method was used to measure the thermal-emf (α) of Cd-Sb alloys relative to Cu for concentrations of 0-100% Sb at junction temperatures of 10 to 100°. Two sharply pronounced maxima were obtained on the diagram of the α-composition of the alloy. One corresponds to the Cd Sb compound with $\alpha = 28.6$ mv/deg, and the second to Cd-Sb with $\alpha = 285$ mv/deg. For pure cadmium, $\alpha = 1.66$ and for antimony $\alpha = 30$ mv/deg. Based on these data it is assumed that the energy spectrum of CdSb has a structure that is usual for semiconductors, although for a final decision it is necessary to determine the temperature dependence of the electric conductivity.

Card 1/1

TURKOV   V. A.

POLIKANOV, M. N.

PHASE I BOOK EXPLOITATION   SOV/2216

5(4)

Sovsshchaniye po elektrokhimii. 4th, Moscow, 1956.

Trudy...; (sbornik) (Transactions of the Fourth Conference on Elect-
rochemistry; Collection of Articles) Moscow, Izd-vo AN SSSR,
1959. 868 p. Errata slip inserted. 2,500 copies printed.
Sponsoring Agency: Akademiya nauk SSSR. Otdeleniye khimicheskikh
nauk.

Editorial Board: A.N. Frumkin (Resp. Ed.) Academician, O.A. Yesin,
Professor; S.I. Zhdanov (Resp. Secretary), B.N. Kabanov, Pro-
fessor, S.I. Zhdanov (Resp. Secretary); B.N. Kabanov, Professor,
Ya. M. Kolotyrkin, Doctor of Chemical Sciences; V.V. Losev, P.D.
Lukovtsev, Professor; Z.A. Solov'yeva; V.V. Stender, Professor;
and O.M. Florianovich; Ed. of Publishing House: N.G. Yegorov;
Tech. Ed.: T.A. Prusakova.

PURPOSE: This book is intended for chemical and electrical engi-
neers, physicists, metallurgists and researchers interested in
various aspects of electrochemistry.

COVERAGE: The book contains 127 of the 138 reports presented at
the Fourth Conference on Electrochemistry sponsored by the Depart-
ment of Chemical Sciences and the Institute of Physical Chemistry,
Academy of Sciences, USSR. The collection pertains to different
branches of electrochemical kinetics, double layer theories and
galvanic processes in metal electrodeposition and industrial elect-
rolysis. Abridged discussions are given at the end of each divi-
sion. The majority of reports not included here have been
published in periodical literature. No personalities are mentioned.
References are given at the end of most of the articles.

Teryanov, O.A., A.I. Cherniavskaya, and A.I. Ioslievich
(Institut khimii AN UzSSR-Institute of Chemistry, Academy

Card 21/34

of Sciences, UzSSR). Separation Coefficient During Sim-
ultaneous Electrodeposition of Metals of the Iron Group   536

Zosimovich, D.P., and M.Ya. Mocharna. Cathodic Processes
During the Separation of Zinc and Hydrogen at Electrodes   541
of Other Metals

Shluger, M.A. Role of a Side Anion in the Process of Chromium   547
Electrodeposition

Turkov, V.A. (Lesotekhnicheskiy Institut Arkhangel'sk-
Institute for Forest Technology, Arkhangel'sk). Neutra-
lization of Metallic Ions at Macrodistances From the   550
Cathode

Chishikov, D.M., and L.V. Plginskaya. Influence of Boric
Acid on the Cathodic Polarization of Nickel in Sulfuric   553
Acid Solutions

Card 22/34

18.7100
18.1200

SOV/126-8-1-4/25

66851

AUTHORS: Yurkov, V.A. and Nekrasov, V.V.

TITLE: Thermoelectric Properties of Sn-Cd and Pb-Cd Alloys

PERIODICAL: Fizika metallov i metallovedeniye, 1959, Vol 8, Nr 1,
pp 21-24 (USSR)

ABSTRACT: The thermoelectric properties of alloys have been widely
studied. This is due to the fact that they have great
practical and scientific importance. In practice, it is
often necessary to have materials which when put in
series with a given metal do not give rise to an
appreciable thermal e.m.f. From this point of view
it is important to carry out further studies on systems
in which the thermal e.m.f. curve has a point at which
the sign of the e.m.f. changes. The present work was
carried out in order to obtain the thermal e.m.f. curve
for Sn-Cd and Pb-Cd alloys as a function of the
concentration of the components. The effect of experi-
mental conditions on the thermal e.m.f. curve was also
investigated. The results obtained are shown in
Figs 1 and 2. Fig 1 shows the dependence of the
thermal e.m.f. for Sn-Cd alloys as a function of the
temperature difference between the hot and the cold

Card 1/2

Thermoelectric Properties of Sn-Cd and Pb-Cd Alloys

66887
SOV/126-8-1-4/25

junctions for different compositions (indicated in the
figure caption). Fig 2 shows the dependence of the
thermal e.m.f. of Sn-Cd alloys on composition for
different temperature differences (indicated in the
figure caption). Figs 3 and 4 show analogous plots
for Pb-Cd alloys. As can be seen, sign inversion occurs
in all the graphs. The position of the inversion point
on the Cd concentration axis changes with the temperature
difference. As the latter increases, the inversion
point is displaced towards smaller cadmium concentrations.
There are 4 figures and 7 Soviet references.

ASSOCIATION: Arkhangel'skiy lesotekhnicheskiy institut
(Arkhangel'sk Forestry Institute)

SUBMITTED: March 3, 1958

Card 2/2

SOV/76-33-2-24/45

5(4)

AUTHORS: Yurkov, V. A., Nekrasov, V. V.

TITLE: The Electrodic Potential of Cd-Sb(Elektrodnyye potentsialy splavov Cd-Sb)

PERIODICAL: Zhurnal fizicheskoy khimii, 1959, Vol 33, Nr 2, pp 395 - 397 (USSR)

ABSTRACT: Explanations concerning the relationship between the electrode potential of alloys and their composition (Refs 1-4) are of special interest in investigations on the electro-chemical properties of metallic alloys. Thermal analyses of the system Cd-Sb showed that two compounds, Cd_3Sb_2 and CdSb (Ref 5) are present. Cd_3Sb_2 decomposes partially at lower temperatures (Ref 6) while CdSb is stable and can be used as a semi-conductor in rectifiers and amplifiers (Ref 7). The work of this paper utilized a CZB-47 ballistic galvanometer (Ref 8), a MYe-4 standard sample set as condensor, and a PPTV-1 galvanometer. 12 alloys with the following composi-tions were studied: 5.7, 6, 10, 30, 45, 48, 50, 52, 58, 65, and 80% Sb, and 1. n H_2SO_4-, HCl-, and NaOH solutions were

Card 1/2

The Electrodic Potential of Cd-Sb   SOV/76-33-2-24/45

used as electrolytes. The addition of Sb causes the
potential of the alloy to become more positive. The absolute
value of the potential is higher in the alkali solution
than in the acid solutions. 3 minima are indicated in the
potential-composition diagram (Fig). The minimum at 7.5% Sb
is considered to be a eutectic structure. The minimum at
52% Sb clearly represents the formation of the compound
CdSb. The potential minimum at 80% has still to be explained
by further investigations. Finally, M. A. Popova is thanked.
There are 1 figure and 10 Soviet references.

ASSOCIATION: Arkhangel'skiy lesotekhnicheskiy institut (Arkhangel'sk
              Technical Institute for Wood)

SUBMITTED: July 17, 1957

Card 2/2

S/139/62/000/001/023/032
E032/E114

/P. /200

AUTHORS: Yurkov, V.A., and Ivoninskaya, L.A.

TITLE: Physical properties of CuAl$_2$

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy,
            Fizika, no.1, 1962, 138-143

TEXT: The authors report an experimental study of the
physical properties of CuAl$_2$. This material is said to be
interesting because its components are typical metals and it is
used as the hardening base for many alloys. In the present work
the authors have measured its density, microhardness, linear
expansion, specific heat, electrical conductivity, and thermo-
electric power. The composition of the specimens was 54.09% Cu
and 45.91% Al. The density (measured by a hydrostatic method)
was found to be 3.98 g/cm^3 at 20 °C. The microhardness was
measured with the ПМТ-3 (PMT-3) apparatus using loads between
5 and 100 g. It was found that H_{20} = 535.0 kg/mm^2 and that   (1)
the formula
                      $P = ad^n$

Card 1/3

Physical properties of CuAl$_2$ S/139/62/000/001/023/032
E032/E114

was satisfied to a high degree of accuracy [P is the load (kg),
d is the length of the diagonal of the impression (mm),
n = 1.77 and a = 99.0]. The linear expansion was measured with
a quartz dilatometer calibrated against spectroscopically pure
copper. The average expansion coefficient between 20 and 300 °C
was found to be 17.6 x 10^{-6} deg^{-1}. The specific heat was
measured by the method of cooling, as described by
Ya.Ya. Turovskiy and G.M. Bartenev (Ref.14: ZhTF, v.10, 1940, 514).
It was found that in the temperature range 50-300 °C the specific
heat at constant pressure (cal.g^{-1} deg^{-1}) is given by

$$c_p = 0.104 + 92 \cdot 10^{-4} \sqrt{t} \qquad (3)$$

where t is the temperature of the specimen in °C.
Fig.2 shows the resistivity (ohm.cm) as a function of temperature.
No explanation was found of the nonlinearity of this function.
Finally, the thermoelectric emf was measured as a function of
temperature and the result is shown in Fig.3, in which curve 1
refers to CuAl$_2$ and curve 2 to Al. CuAl$_2$ is a typical
paramagnetic. Comparison of the properties of Cu and Al shows

Card 2/4

Physical properties of $CuAl_2$ S/139/62/000/001/023/032
                                       E032/E114

that in many respects the properties of $CuAl_2$ are intermediate
between Cu and Al. The exceptions are the microhardness and
the resistivity, which are considerably higher than those for
Cu and Al.

There are 3 figures and 1 table.

ASSOCIATION: Arkhangel'skiy lesotekhnicheskiy institut imeni
             V.V. Kuybysheva
             (Arkhangel'sk Forestry Institute imeni
             V.V. Kuybyshev)

SUBMITTED: Initially, June 25, 1960;
             after revision, June 2, 1961

Card 3/4

37716
S/159/62/000/002/011/028
E073/E335

96.2532
18.9100

AUTHORS: Yurkov, V.A. and Nekrasov, V.V.

TITLE: Physical properties of copper-antimony alloys

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy, Fizika,
            no. 2, 1962, 62 - 69

TEXT: The microhardness, thermal, electrical and thermo-
electric properties of Cu_3Sb-Cu_2Sb were investigated in the
range of copper contents between 61.02 and 50.07 wt.% and
antimony contents between 38.98 and 48.93 wt.%. Microhardness
measurements with a load of 20 g have shown that the Mayer
relations are obeyed with a satisfactory degree of accuracy.
The microhardness may be greatly affected by the displacement of
admixtures into the intercrystallite space and by the fact that
the intercrystallite substance in high-purity materials is in a
finely-disperse state. The microhardness of freshly cleaved
surfaces of Cu_2Sb single crystals was $H_{20} = 315$ kg·mm^{-2}. The
dependence of the coefficient of linear expansion $\alpha \cdot 10^{-6}$ deg^{-1}.

Card 1/8 3

S/139/62/000/002/011/028
E073/E335

Physical properties of ....

of Cu_3Sb-Cu_2Sb alloys on the Cu_2Sb content (mole.%) is plotted in Fig. 2. The electrical resistance ρ of all the alloys containing Cu_3Sb decreased with annealing time and the decrease was the smaller the less Cu_3Sb the alloy contained. Fig. 3 shows the dependence of ρ (10^{-6} Ω.cm) on the annealing time (τ min) for pure Cu_3Sb (Curve 1) and for an alloy containing 40 mole.% Cu_2Sb.(Curve 2). The dependence of the steady-state resistance of alloys on temperature proved to be linear. Fig. 5 shows the dependence of the resistance (ρ x 10^{-6} Ω ,cm and of the temperature coefficient β x 10^{-3} deg^{-1} on the Cu_2Sb content of Cu_3Sb-Cu_2Sb alloys. Curves 1 and 2 represent, respectively, the resistance isotherms at $t = 50$ and 200 °C; curve 3 represents the dependence of the temperature coefficient on the composition. The thermo-electric properties were measured on the same specimens as the resistance. The dependence of the thermo-e.m.f., ε, μV, on the difference in

Card 2/0 3

Physical properties of S/139/62/000/002/011/028
E073/E335

temperature is plotted in Fig. 6 for the compounds Cu_3Sb (1),
Cu_2Sb (2), 80% Cu_3Sb + 20% Cu_2Sb (3) and 20% Cu_3Sb +
80% Cu_2Sb (4). Fig. 7 gives the thermo-e.m.f., ε, μV, as a
function of the Cu_3Sb content (mole.%) of Cu_3Sb-Cu_2Sb alloys
for the temperature differences $\wedge t$ = 100, 150 and 200 $^{\circ}C$,
respectively. Cu_2Sb is a strongly paramagnetic substance,
whilst Cu_3Sb is a diamagnetic substance. There are 7 figures
and 2 tables.

ASSOCIATION: Arkhangel'skiy lesotekhnicheskiy institut
               imeni V.V. Kuybysheva (Archangel Forestry
               Institute imeni V.V. Kuybyshev)

SUBMITTED: June 25, 1960 (initially)
               June 2, 1961 (after revision)

Card 3/8

S/126/62/014/002/003/018
E114/E435

AUTHOR: Yurkov, V.A.

TITLE: Physical properties of Cu-Zn-Sb alloys

PERIODICAL: Fizika metallov i metallovedeniye, v.14, no.2, 1962,
           172-181

TEXT: The aims of the investigation were to ascertain the cause
of the embrittlement of copper-zinc alloys caused by antimony
additions and to study the properties of Cu-Zn-Sb alloys.   Alloys
of the pseudo-binary systems $CuZn_3-Zn_3Sb_2$, $Cu_5Zn_8-Zn_3Sb_2$ and
$CuZn-Zn_3Sb_2$ were studied.   Alloys of each system containing
10, 20, 30, 40, 50, 60, 70, 80 and 90% by weight of Zn_3Sb_2 were made by
melting the pure components in evacuated flasks of low melting-
point glass and placing the flask in a thick-walled steel crucible.
As the temperature was increased the glass softened and the alloys
were covered by a semi-liquid film of glass which protected them
from sublimation or oxidation.   The samples used for the tests
were held at 350°C for 200 hours, followed by furnace cooling.
The investigation involved the study of the microstructure,
microhardness tests and determinations of density, linear

Card 1/3

Physical properties of ...

expansion, electrical and thermoelectric properties.
Metallographic analysis showed that the alloys of all three
systems were two-phase.   As would be expected from their higher
melting points, the primary solidification which occurred was of
the electron compounds.   There were some indications that there
was a very low mutual solubility of the components in the alloys.
The solubility of Zn_3Sb_2 in the β, γ and ϵ phases was less than 1%.
The microhardness tests, which were carried out with loads of
5 to 100 g gave values for the microhardness of pure Zn_3Sb_2
compound which were practically identical with those obtained for
Sn_3Sb_2 in brasses.   Density determinations gave values of
7.67 g/cm^3 for $CuZn_3$,   7.97 for Cu_5Zn_8, 8.14 for $CuZn$ and 6.26 for
$ZnSb_3$.   The density of the alloys in all cases changed
continuously, but not linearly, with composition.   The variation
with composition of the linear expansion of the alloys was linear
with systems containing $CuZn_3$ and Cu_5Zn_8,   but nonlinear for the
Cu-Zn system.   The resistivity at 20°C was 10.5 x 10^{-6} ohm per cm^3
for $CuZn_3$, 11.8 x 10^{-6} for Cu_5Zn_8 and 5.6 x 10^{-6} for $CuZn$, but the
value for Zn_3Sb_2 was considerably higher, being 1600 x 10^{-6} ohm/cm^3.
Card 2/3

Physical properties of ...

S/126/62/014/002/003/018
E114/E435

In the alloy systems, the rate of increase in resistance was nonlinear with increase in Zn_3Sb_2 content. The thermoelectric properties were measured relative to copper and it was found that the emf produced with Zn_3Sb_2 was opposite in sign to that produced by the other compounds. In all the alloy systems the thermal emf increased nonlinearly with increase in Zn_3Sb_2 content of the alloy. From the metallographic examinations and microhardness determinations it was shown that the embrittlement resulting from antimony additions to brass is due to the compound Zn_3Sb_2, in alloys containing more than 50% zinc. There are 9 figures and 2 tables.

ASSOCIATION: Arkhangel'skiy lesotekhnicheskiy institut
(Archangel'sk Lumber Technical Institut)

SUBMITTED: June 24, 1961 (initially)
             January 2, 1962 (after revision)

Card 3/3

YURKOV, V.A.; OKOLYKHINA, L.B.

Thermionic converter of thermal energy. Izv.vys.ucheb.zav.; fiz.
no.3:34-36 '63.
(MIRA 16:12)

1. Arkhangel'skiy lesotekhnicheskiy institut imeni Kuybysheva.

L 8089-66   EWT(m)/EWP(t)/EWP(b)   IJP(c)   JD

ACC NR: AP5027134   SOURCE CODE: UR/0126/65/020/004/0512/0518

AUTHOR: Yurkov, V. A.; Butyaheva, N. A.; Okolykhina, L. B.

ORG: Archangel Wood Industry Institute im, V. V. Kuybshev
(Arkhangel'skiy lesotekhnicheskiy institut)

TITLE: Electrical and thermoelectrical properties of aluminum-zinc
alloys

SOURCE: Fizika metallov i metallovedeniye, v. 20, no. 4, 1965, 512-518.

TOPIC TAGS: thermoelectric property, electric property, aluminum
alloy, zinc alloy

ABSTRACT: The test samples were 80-85 mm long with a diameter of 3.5
mm. They were annealed for 120 hours at a temperature of 250 + 5°C,
and cooled in the furnace. The samples contained from 10 to 100%
aluminum and 10 to 100% zinc. The resistance of the samples was mea-
sured by the conventional potentiometric method. The thermoelectric
motive force was measured with respect to copper. Measurements of the
magnetic susceptibility (Faraday method) were made on cylindrical sam-
ples with a height of 5 ± 0.1 mm. The sample was placed in a magnetic
field with an intensity of 10^4 oersteds. The magnetic susceptibility
was calculated by the formula:

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ACC NR: AP5027134

2

$$\varkappa_x = \varkappa_1 \frac{m_1}{m_x} \cdot \frac{F_x}{F_1} \qquad (1)$$

where kappa$_1$, m$_1$, F$_1$ are the susceptibility, the mass, and the force acting on the sample. The magnetic susceptibility of the samples was calculated with respect to aluminum, for which kappa$_1$ was taken as [illegible] were made at different values of [illegible] field. According to [illegible] data, aluminum is paramagnetic, and zinc diamagnetic. Therefore, it [illegible] expected that, at a given composition, the magnetic susceptibility would change sign. The experimental results are shown in a table. With an increase in the zinc content in the alloy, the magnetic susceptibility decreases monotonically, but, in the region of [illegible] zinc, there is a marked increase in kappa. At high zinc concentrations, the magnetic susceptibility again decreases and, in alloys containing 80% zinc, is immeasurably small. The magnetic susceptibility of alloys containing more than [illegible] zinc is negative. "The authors are deeply indebted to S. I. Artyukhov for his great help in the experiment." Orig. art. has: 6 figures and 1 table.

SUB CODE: MM,EM/ SUBM DATE: 17Dec64/ ORIG REF: 009 / OTH REF: 003

Card 2/2 gw

YURKOV, V.K., inzh.

Three-position turning attachment to hydraulic presses for
pressmolds. Mash.Bel. no.5:198-200 '58.   (MIRA 12:11)
            (Hydraulic presses--Attachments)

VERSHININA, V.V.; YURKOV, V.N.

    Slags of nonferrous metallurgy as material for the manufacture
of mine supports. Trudy Alt. GMNII AN Kazakh. SSR 15:53-59 '63.

                                                  (MIRA 17:3)

Yurkov V. N.

127-58-4-5/31

AUTHORS: Volkov, K.D., Chief Engineer, Yergaliyev, A.Ye., Candidate of
Technical Sciences, Yurkov, V.N., and Osipov, A.V., Mining
Engineers

TITLE: Experience of Exploitation of Block Nr 34 in the Belousovo
Mine (Opyt otrabotki bloka Nr 34 na Belousovskom rudnike)

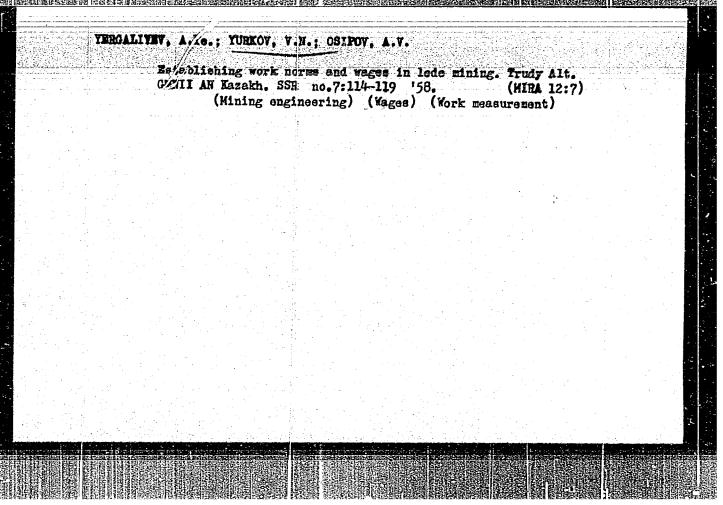PERIODICAL: Gornyy Zhurnal, 1958, Nr 4, pp 19-21 (USSR)

ABSTRACT: The authors describe how well the mining work of the block
Nr. 34 of the Belousovo Mine was organized. The work was exe-
cuted by a party of 12 men. This party executed all the mining
work, the boring of blast holes and the maintenance of all
mechanical appliances. There are 2 figures and 3 tables.

ASSOCIATION: Belousovskoye rudoupravleniye (Belousovo Mining Administration)

Card 1/1   1. Mines - Operation

YERGALIYEV, A.Ye.; YURKOV, V.N.; OSIPOV, A.V.

Boring and blasting operations in drift mining. Trudy Alt. GNII
AN Kazakh. SSR .no.7: 102-113 '58.   (MIRA 12:7)
· (Boring) (Blasting)

YERGALIYEV, A.Ye.; YURKOV, V.N.; OSIPOV, A.V.

Establishing work norms and wages in lode mining. Trudy Alt.
GMNII AN Kazakh. SSR no.7:114-119 '58.   (MIRA 12:7)
(Mining engineering) (Wages) (Work measurement)

Yurkov, V. N.

118-58-3-11/21

AUTHORS: Yurkov, V.N., and Belyashov, V.N., Engineers

TITLE: A Loading and Transportation Aggregate (Pogruzochno-trans-
              portnyy agregat)

PERIODICAL: Mekhanizatsiya Trudoyemkikh i Tyazhelykh Rabot, 1958, # 3,
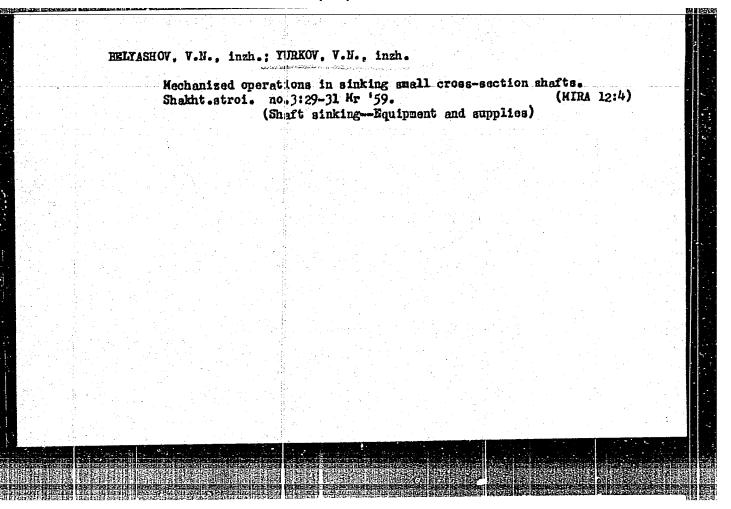   pp 30-31 (USSR)

ABSTRACT: In order to speed up the transportation of rock and to
              raise labor efficiency, the engineers K.D. Volkov, B.M.
              Grudin and N.F. Baklitskiy of the Belousovskiy rudnik (Belo-
              usovo Mine) have designed a level-driving bunker train with
              a scraper conveyor of the type PML-5, which mechanizes com-
              pletely the loading, transportation and unloading of ex-
              cavated material.
                  The basic parts of the aggregate are: the bunker train,
              the scraper crane, the loading device and the electric loco-
              motive. The bunker train consists of 15 cars, holding
              capacity is 25 cu m and the length of the train is 31 m.
                  There are 2 graphs.

AVAILABLE: Library of Congress
Card 1/1

BELYASHOV, V.N., inzh.; YURKOV, V.N., inzh.

Mechanized operations in sinking small cross-section shafts.
Shakht.stroi. no.3:29-31 Mr '59.   (MIRA 12:4)
              (Shaft sinking--Equipment and supplies)

GRUDIN, B.M., insh.; YURKOV, V.N., insh.; BELYASHOV, V.N., insh.

What was made apparent by the use of roof bolting in mining. Shakht.stroi. no.11:24-27 N '59.   (MIRA 13:3)

1. Blubochanskoye shakhtostroyupravleniye, Vostochno-Kazakh- stanskaya oblast'.
                    (Mine roof bolting)

ZYRYANOV, T.P., inzh.; TURGAMBAYEV, B.M., inzh.; BELYASHOV, V.N., inzh.; YURKOV, V.N., inzh.

Use of rock ammonite in Altai Mountain mines.   Shakht.stroi. 4
no.2:19-20 F '60.   (MIRA 13:5)
        (Altai Mountains--Mining engineering)
        (Explosives)

YURKOV, V.N., inzh.; ZYRYANOV, T.P., inzh.; KOROGOD, G.A., tekhnik; BELYASHOV, V.N., inzh.

Working capacity of rod-type timber joints. Shakht. stroi. no.8:21-25 Ag '60.   (MIRA 13:11)

1. Altayskiy gorno-metallurgicheskiy nauchno-issledovatel'skiy institut (for Yurkov). 2. Maslyanskiy rudnik Zyryanovskogo svintsovogo kombinata (for Zyryanov, Korogod). 3. Glubochanskoye shakhtostroyupravleniye (for Belyashov).
                              (Mine timbering)

YURKOV, V. N., Cand. Tech. Sci. (diss) "Investigation of Systems
of Working and Clean Extraction Applicable to deposits of Irtysh
Combinat," Alma-Ata, 1961, 18 pp. (Kazakh Polytech. Inst.) 200
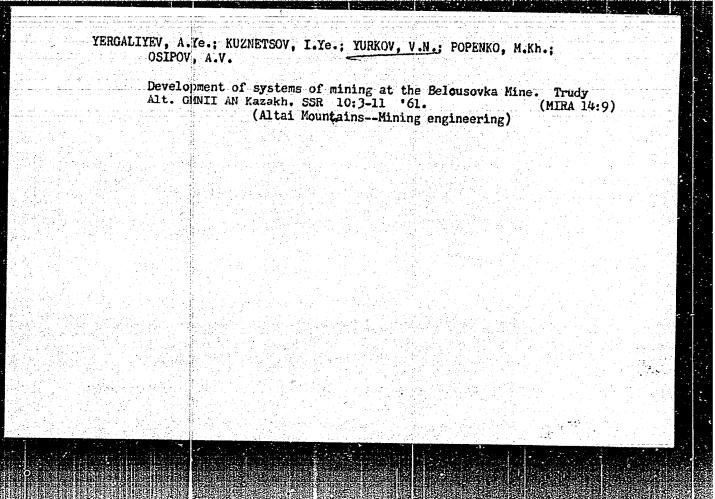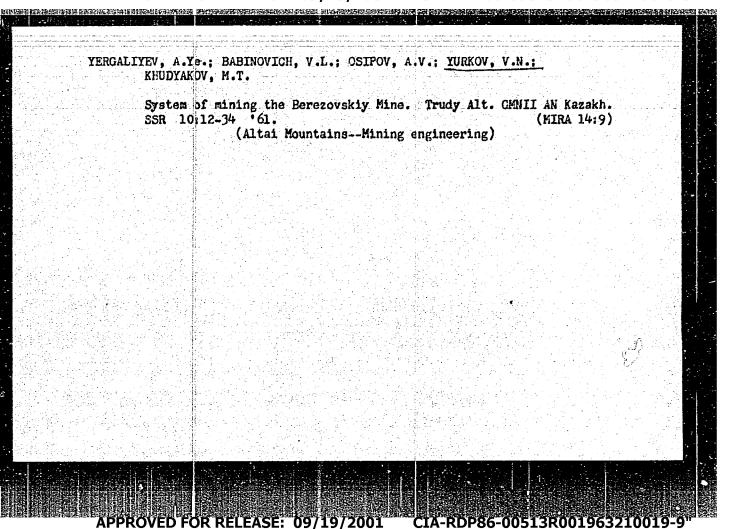copies (KL Supp 12-61, 277).

YERGALIYEV, Aodesh Yergaliyevich; YURKOV, Viktor Nazarovich; OSIPOV,
Aleksandr Vasil'yevich; ZYRYANOV, Timofey Pavlovich; KUZNETSOV,
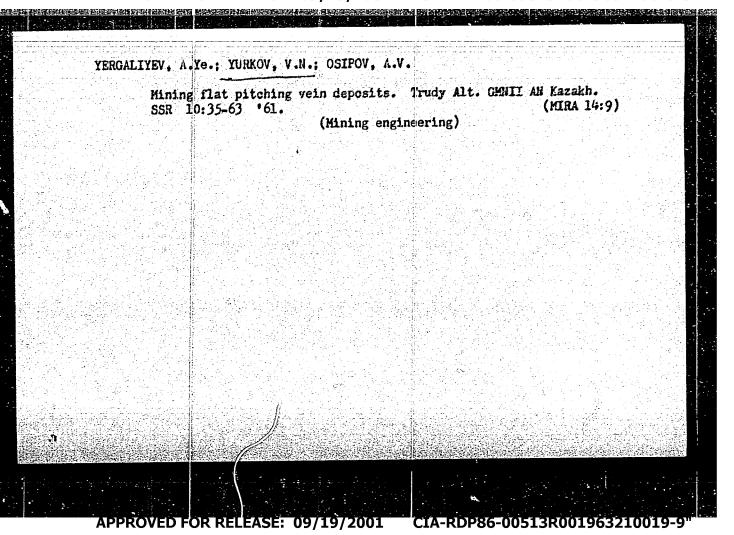Yu.N., red.; BOROKINA, Z.P., tekhn. red.

[Systems of working ore deposits of minor and average thickness]
Sistemy razrabotki rudnykh mestorozhdenii maloi i srednei moshchno-
sti. Alma-Ata, Izd-vo Akad. nauk Kazakhskoi SSR, 1961. 205 p.
(MIRA 14:7)

(Mining engineering)

YERGALIYEV, A.Ye.; KUZNETSOV, I.Ye.; YURKOV, V.N.; POPENKO, M.Kh.;
OSIPOV, A.V.

Development of systems of mining at the Belousovka Mine. Trudy
Alt. GMNII AN Kazakh. SSR 10:3-11 '61.   (MIRA 14:9)
                  (Altai Mountains--Mining engineering)

YERGALIYEV, A.Ye.; BABINOVICH, V.L.; OSIPOV, A.V.; YURKOV, V.N.;
    KHUDYAKOV, M.T.

    System of mining the Berezovskiy Mine. Trudy Alt. GMNII AN Kazakh.
    SSR 10:12-34 '61.   (MIRA 14:9)
                (Altai Mountains--Mining engineering)

YERGALIYEV, A.Ye.; YURKOV, V.N.; OSIPOV, A.V.

     Mining flat pitching vein deposits. Trudy Alt. GHNII AN Kazakh.
SSR 10:35-63 '61.   (MIRA 14:9)
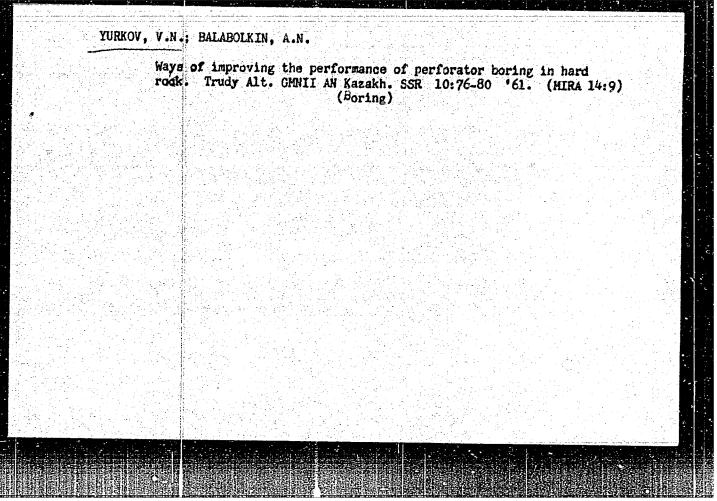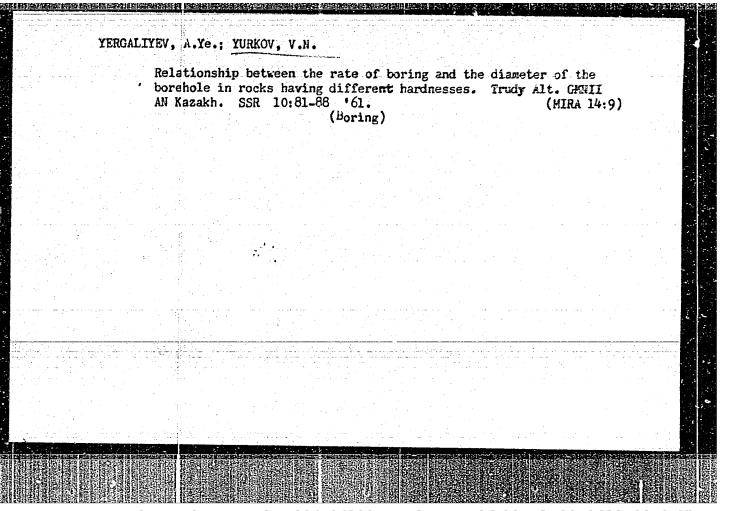   (Mining engineering)

ZYRYANOV, T.P.; TURGAMBAYEV, B.M.; KARABACH, T.L.; YURKOV, V.N.

Practice of using the system of complete shrinkage stopping with
breaking by means of deep holes at the Maslyanskiy Mine. Trudy
Alt. (IMNII AN Kazakh. SSR 10:64-69 '61.   (MIRA 14:9)
 (Altai Mountains--Stoping (Mining)) (Boring) (Blasting)

YURKOV, V.N.; BALABOLKIN, A.N.

Ways of improving the performance of perforator boring in hard
rook. Trudy Alt. GMNII AN Kazakh. SSR 10:76-80 '61. (MIRA 14:9)
(Boring)

YERGALIYEV, A.Ye.; YURKOV, V.N.

Relationship between the rate of boring and the diameter of the
borehole in rocks having different hardnesses. Trudy Alt. GMII
AN Kazakh. SSR 10:81-88 '61.   (MIRA 14:9)
                          (Boring)

ZYRYANOV, T.P.; KOROGOD, G.A.; MIL'CHENKO, D.V.; YURKOV, V.N.

Selecting the structure and parameters of bolting at the Maslyanskiy
Mine. Bezop.truda v prom. 5 no.1:12-13 Ja '61.   (MIRA 14:2)
           (Altai Territory—Mine roof bolting)

BELYASHOV, V.N., inzh.; YURKOV, V.N., inzh.

    Utilization of a sectional hole for sinking twin uprising
    shafts. Shakht.stroi. 6 no.1:19-21 Ja '62.   (MIRA 14:12)

    1. Glubocharskoye shakhtostroyupravleniye (for Belyashov).
    2. Altayskiy gorno-metallurgicheskiy nauchno-issledovatel'skiy
    institut (for Yurkov).
                       (Coal mines and mining)

GRUDIN, B.M., inzh.; BELYASHOV, V.N., inzh.; YURKOV, V.N., inzh.

Use of a bunker train in drifting. Shakht.stroi. 6 no.4:4-5
Ap '62.   (MIRA 15:4)

1. Kazgiprotsvetmet (for Grudin). 2. Altayskiy gornometallurgi-
cheskiy nauchno-issledovatel'skiy institut AN KazSSR (for Belyashov,
Yurkov).
                (Kazakhstan—Mine railroads)